This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): A method of MR imaging for visualization of intravascular thrombi comprising administering to a subject who is to undergo MR imaging for determination of the presence of intravascular thrombi, ~~using,~~ as contrast media for visualization, perfluoroalkyl-containing metal complexes that have a critical micelle formation concentration < 10^{-3} mol/l, a hydrodynamic micelle diameter (2 Rh) > 1 nm and a proton relaxivity in plasma (R^1) > 10 l/mmol·s, and visualizing intravascular thrombi in said subject with an MR imaging apparatus.

Claim 2 (Currently Amended): A method according to claim 1, wherein ~~the metal complexes are used as MRI contrast media for visualization of~~ venous thrombi is visualized.

Claim 3 (Currently Amended): A method according to claim 1, wherein ~~the metal complexes are used as MRI contrast media for visualization of~~ arterial thrombi is visualized.

Claim 4 (Currently Amended): A method according to claim 1, wherein ~~the metal complexes are used as MRI contrast media for~~ early determination of a thrombotic occlusive vascular disease is achieved by said visualization.

Claim 5 (Previously Presented): A method according to claim 1, wherein the metal complexes have a micelle formation concentration of < 10^{-4} mol/l.

Claim 6 (Previously Presented): A method according to claim 1, wherein the metal complexes have a hydrodynamic micelle diameter is ≥ 3 nm.

Claim 7 (Previously Presented): A method according to claim 1, wherein the metal complexes have a proton relaxivity in plasma of > 13 l/mmol·s.

Claim 8 (Previously Presented): A method according to claim 1, wherein the perfluoroalkyl-containing metal complexes are of formula I

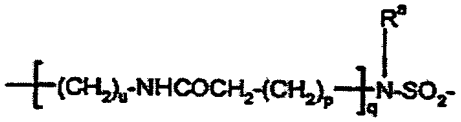
$$R^F\text{-}L\text{-}K \qquad I$$

in which

R^F is a perfluorinated, straight-chain or branched carbon chain with formula $-C_nF_{2n}E$, in which

E represents a terminal fluorine, chlorine, bromine, iodine or hydrogen atom and n stands for numbers 4-30,

L means a direct bond, a methylene group, an -NHCO group, a group



wherein p means the numbers 0 to 10, and q and n, independently of one another, mean numbers 0 or 1, and

R^a is a hydrogen atom, a methyl group, a benzyl group, a phenyl group, a $-CH_2$-OH group, a CH_2OCH_3 group, a $-CH_2$-CO_2H group or a C_2-C_{15} chain, which optionally is interrupted by 1 to 3 oxygen atoms, 1 to 2 >CO groups or an optionally substituted aryl group and/or is substituted with 1 to 4 hydroxyl groups, 1 to 2 C_1-C_4 alkoxy groups, 1 to 2 carboxy groups, a group $-SO_3H$-,

or is a straight-chain, branched, saturated or unsaturated C_2-C_{30} carbon chain, which optionally contains 1 to 10 oxygen atoms, 1 to 3 $-NR^a$ groups, 1 to 2 sulfur atoms, a piperazine, a $-CONR^a$ group, one to six $-NR^aCO$ groups, an $-SO_2$ group,

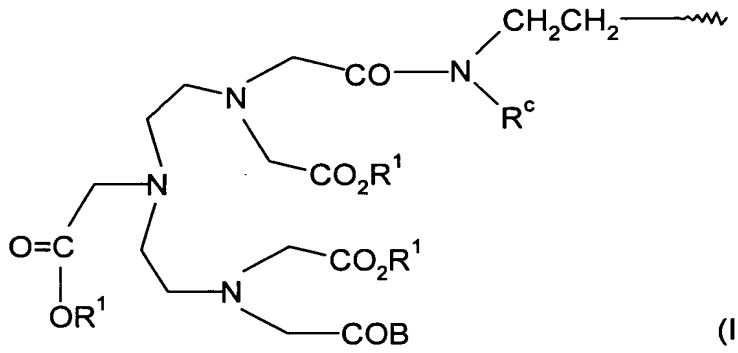
an -NR^a-CO_2 group, 1 to 2 CO groups, a group -CO-N-T-N(R^a)-SO_2-R^F, or 1 to 2 optionally substituted aryls and/or is interrupted by these groups and/or is optionally substituted with 1 to 3 -OR^a groups, 1 to 2 oxo groups, 1 to 2 -NH-COR^a groups, 1 to 2 -$CONHR^a$ groups, 1 to 2 -$(CH_2)_p$-CO_2H groups, 1 to 2 groups -$(CH_2)_p$-$(O)_q$-CH_2CH_2-R^F,

wherein

R^a, R^F and p and q have the above-indicated meanings, and

T means a C_2-C_{10} chain, which optionally is interrupted by 1 to 2 oxygen atoms or 1 to 2 -NHCO groups,

K stands for a complexing agent or metal complex or a salt thereof with an organic and/or inorganic base or amino acid or amino acid amide, specifically for a complexing agent or complex of general formula II



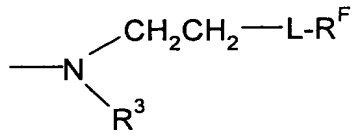
(II)

in which R^c, R^1 and B are independent of one another, and

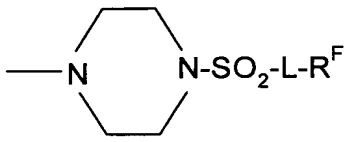
R^c has the meaning of R^a or means -(CH_2)m-L-R^F, wherein m is 0, 1 or 2, and L and R^F have the above-mentioned meaning,

R^1, independently of one another, mean a hydrogen atom or a metal ion equivalent of atomic numbers 22-29, 42-46 or 58-70,

B means -OR^1 or

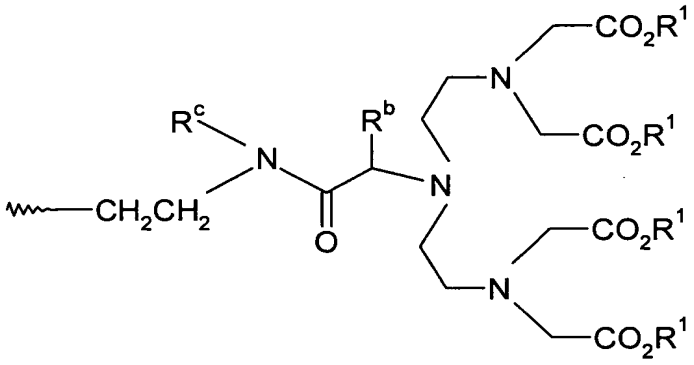


or



wherein R^1, L, R^F and R^c have the above-mentioned meanings, or

K stands for a complexing agent or complex of general formula III



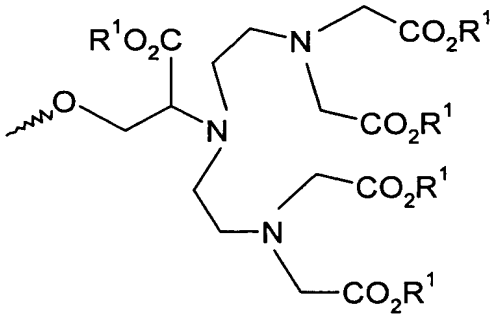
(III)

in which R^c and R^1 have the above-mentioned meanings,

R^b has the meaning of R^a, and

or

K stands for a complexing agent or complex of general formula IV

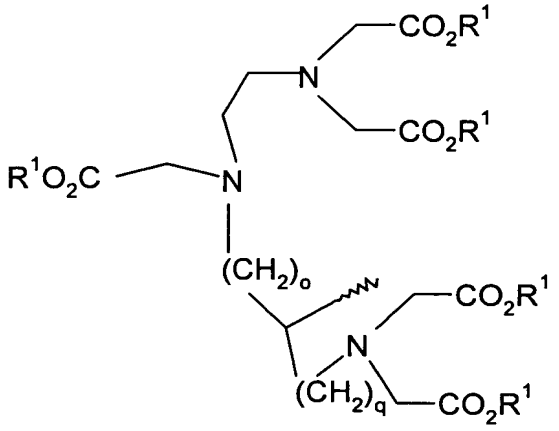


(IV)

in which R^1 has the above-mentioned meaning

or

K stands for a complexing agent or complex of general formula V

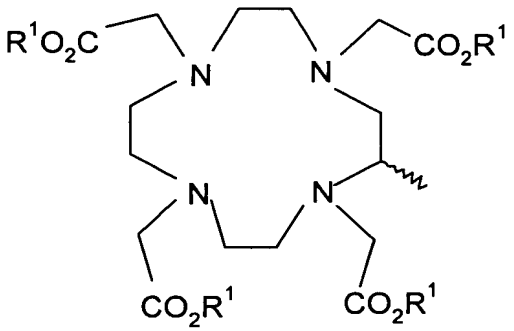


(V)

in which R^1 has the above-mentioned meaning, and o and q stand for numbers 0 or 1, and yields the sum o + q = 1,

or

K stands for a complexing agent or complex of general formula VI

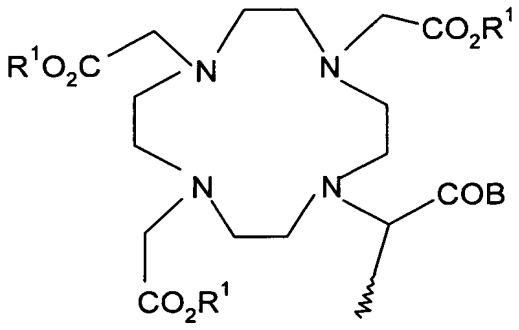


(VI)

in which R^1 has the above-mentioned meaning

or

K stands for a complexing agent or complex of general formula VII

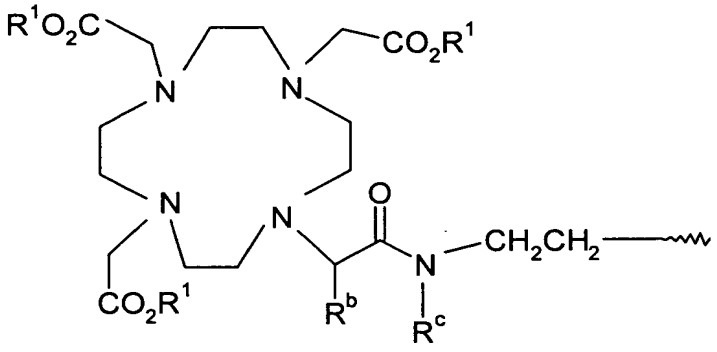


(VII)

in which R^1 and B have the above-mentioned meanings

or

K stands for a complexing agent or complex of general formula VIII

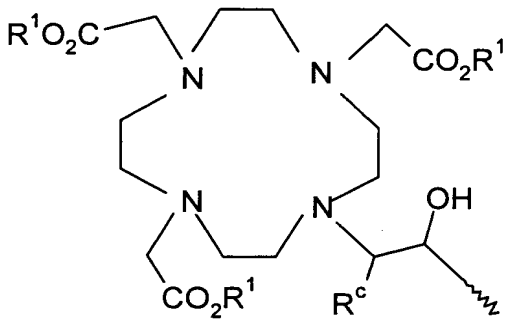


(VIII)

in which R^c, and R^1 have the above-mentioned meanings, and R^b has the above-mentioned meaning of R^a

or

K stands for a complexing agent or complex of general formula IX

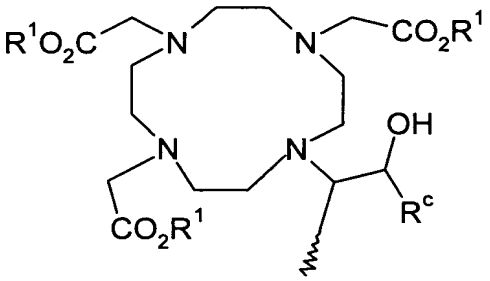


(IX)

in which R^c and R^1 have the above-mentioned meanings,

or

K stands for a complexing agent or complex of general formula X

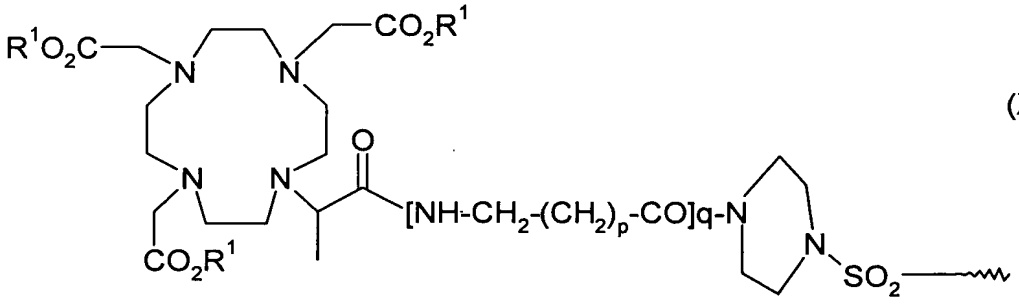


(X)

in which R^c and R^1 have the above-mentioned meanings,

or

K stands for a complexing agent or complex of general formula XI

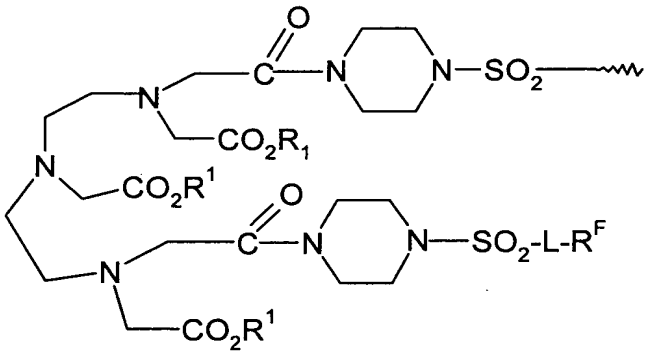


(XI)

in which R^1, p and q have the above-mentioned meanings, and R^b has the meaning of R^a,

or

K stands for a complexing agent or complex of general formula XII

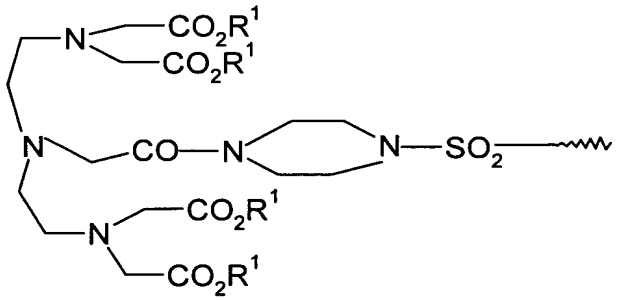


(XII)

in which L, R^F and Z^1 have the above-mentioned meanings,

or

K stands for a complexing agent or complex of general formula XIII



(XIII)

in which R^1 has the above-mentioned meaning.

Claim 9 (Previously Presented): A method according to claim 8, wherein in the compounds of general formula I, L stands for one of the following

α-CH_2-β
α-CH_2CH_2-β
α-$(CH_2)_s$-β s = 3 - 15
α-CH_2-O-CH_2CH_2-β
α-CH_2-(O-CH_2-CH_2-)$_t$-β t = 2 - 6
α-CH_2-NH-CO-β
α-CH_2-NH-CO-CH_2-N(CH_2COOH)-SO_2-β

α-CH_2-NH-CO-CH_2-N(C_2H_5)-SO_2-β

α-CH_2-NH-CO-CH_2-N($C_{10}H_{21}$)-SO_2-β

α-CH_2-NH-CO-CH_2-N(C_6H_{13})-SO_2-β

α-CH_2-NH-CO-$(CH_2)_{10}$-N(C_2H_5)-SO_2-β

α-CH_2-NH-CO-CH_2-N(-CH_2-C_6H_5)-SO_2-β

α-CH_2-NH-CO-CH_2-N(-CH_2-CH_2-OH)SO_2-β

α-CH_2-NHCO-$(CH_2)_{10}$-S-CH_2CH_2-β

α-CH_2NHCOCH_2-O-CH_2CH_2-β

α-CH_2NHCO$(CH_2)_{10}$-O-CH_2CH_2-β

α-CH_2-C_6H_4-O-CH_2CH_2-β

α-CH_2-O-CH_2-C(CH_2-OCH_2CH_2-C_6F_{13})2-CH_2-OCH_2-CH_2-β

α-CH_2-NHCOCH_2CH_2CON-CH_2CH_2NHCOCH_2N(C_2H_5)$SO_2C_8F_{17}$

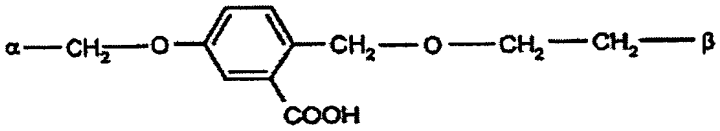
CH_2-CH_2NHCOCH_2N(C_2H_5)-SO_2-β

α-CH_2-O-CH_2-CH($OC_{10}H_{21}$)-CH_2-O-CH_2CH_2-β

α-(CH_2NHCO)4-CH_2O-CH_2CH_2-β

α-(CH_2NHCO)3-CH_2O-CH_2CH_2-β

α-CH_2-OCH_2C(CH_2OH)2-CH_2-O-CH_2CH_2-β



α-CH_2NHCOCH_2N(C_6H_5)-SO_2-β

α-NHCO-CH_2-CH_2-β

α-NHCO-CH_2-O-CH_2CH_2-β

α-NH-CO-β

α-NH-CO-CH_2-N(CH_2COOH)-SO_2-β

α-NH-CO-CH_2-N(C_2H_5)-SO_2-β

α-NH-CO-CH_2-N($C_{10}H_{21}$)-SO_2-β

α-NH-CO-CH_2-N(C_6H_{13})-SO_2-β

α-NH-CO-$(CH_2)_{10}$-N(C_2H_5)-SO_2-β

α-NH-CO-CH_2-N(-CH_2-C_6H_5)-SO_2-β

α-NH-CO-CH_2-N(-CH_2-CH_2-OH)SO_2-β

α-NH-CO-CH_2-β

α-CH_2-O-C_6H_4-O-CH_2-CH_2-β
α-CH_2-C_6H_4-O-CH_2-CH_2-β
α-N(C_2H_5)-SO_2-β
α-N(C_6H_5)-SO_2-β
α-N($C_{10}H_{21}$)-SO_2-β
α-N(C_6H_{13})-SO_2-β
α-N(C_2H_4OH)-SO_2-β
α-N(CH_2COOH)-SO_2-β
α-N($CH_2C_6H_5$)-SO_2-β
α-N-[$CH(CH_2OH)_2$]-SO_2-β
α-N-[$CH(CH_2OH)CH(CH_2OH)$]-SO_2-β

in which α represents the binding site to the complexing agent or metal complex K, and β represents the binding site to the fluorine radical.

Claim 10 (Previously Presented): A method according to claim 8, wherein in the compounds of formula I, n in formula -$C_nF_{2n}E$ stands for numbers 4-15 and/or E in this formula means a fluorine atom.

Claim 11 (Currently Amended): A method according to claim 8, wherein one of the following complexes are administered ~~used~~:

-- Gadolinium complex of 10-[1-methyl-2-oxo-3-aza-5-oxo-{4-perfluorooctylsulfonyl-piperazin-1-yl}-pentyl]-1,4,7-tris(carboxymethyl)-1,4,7,10-tetraazacyclododecane,

-- Gadolinium complex of 10-[2-hydroxy-4-aza-5-oxo-7-oxa-10,10,11,11,12,12,13,13,14,14,15,15,16,16,17,17-heptadecafluoroheptadecyl]-1,4,7-tris(carboxymethyl)-1,4,7,10-tetraazacyclododecane,

-- Gadolinium complex of 10-[2-hydroxy-4-aza-5,9-dioxo-9-{4-perfluorooctyl)-piperazin-1-yl}-nonyl]-1,4,7-tris(carboxymethyl)-1,4,7,10-tetraazacyclododecane,

-- Gadolinium complex of 10-[2-hydroxy-4-aza-5-oxo-7-aza-7-(perfluorooctyl-sulfonyl)-nonyl]-1,4,7-tris(carboxymethyl)-1,4,7,10-tetraazacyclododecane,

-- Gadolinium complex of 10-[2-hydroxy-4-oxa-1H,1H,2H,3H,3H,5H,5H,6H,6H-perfluorotetradecyl]-1,4,7-tris(carboxymethyl)-1,4,7,10-tetraazacyclododecane,

-- Gadolinium complex of 10-[2-hydroxy-4-aza-5-oxo-7-oxa-10,10,11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,19,19-henicosafluoro-nonadecyl]-1,4,7-tris(carboxymethyl)-1,4,7,10-tetraazacyclododecane,

-- Gadolinium complex of 10-[2-hydroxy-4-aza-5-oxo-11-aza-11-(perfluorooctylsulfonyl)-tridecyl]-1,4,7-tris(carboxymethyl)-1,4,7,10-tetraazacyclododecane,

-- Gadolinium complex of 10-[2-hydroxy-4-aza-5-oxo-7-aza-7-(perfluorooctylsulfonyl)-8-phenyl-octyl]-1-4-7-tris(carboxymethyl)-1,4,7,10-tetraaza-cyclododecane.

Claim 12 (Previously Presented): A method according to claim 1, wherein the perfluoroalkyl-containing metal complexes are of formula Ia

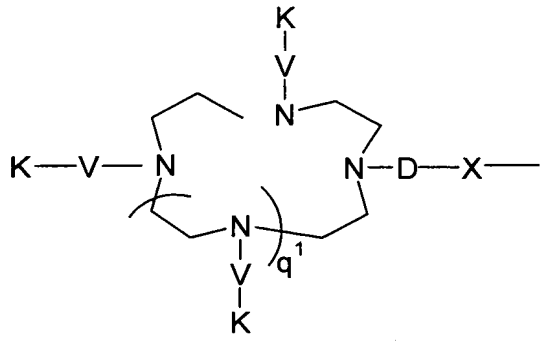
$$A\text{-}R^F \qquad \text{(Ia)}$$

in which

- A is a molecule part that contains 2 to 6 metal complexes, which are bonded directly or via a linker to a nitrogen atom of an annular skeleton chain, and
- R^F is a perfluorinated, straight-chain or branched carbon chain with formula $-C_nF_{2n}E$, in which

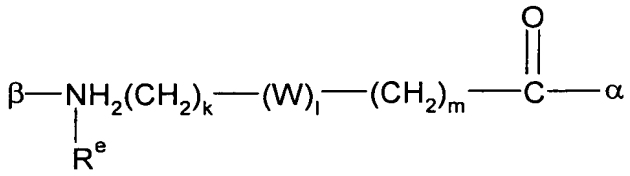
  E represents a terminal fluorine, chlorine, bromine, iodine or hydrogen atom, and n stands for numbers 4-30,

wherein molecule part A has the following structure:

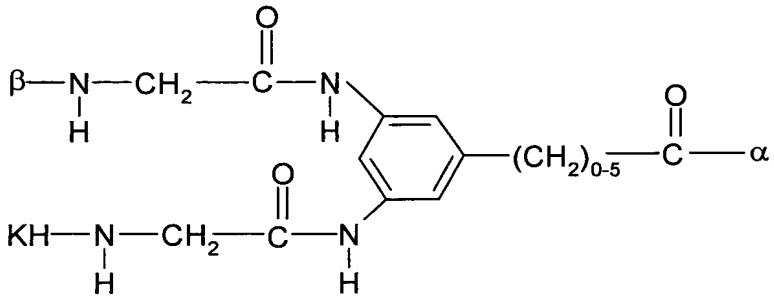


wherein

- q^1 is a number 0, 1, 2 or 3,
- K stands for a complexing agent or metal complex or a salt thereof with an organic and/or inorganic base or amino acid or amino acid amide,
- X is a direct bond to the perfluoroalkyl group, a phenylene group or a C_1-C_{10}-alkylene chain, which optionally contains 1-15 oxygen atoms, 1-5 sulfur atoms, 1-10 carbonyl groups, 10-10 (NR^d) groups, 1-2 NR^dSO_2 groups, 1-10 $CONR^d$ groups, 1 piperidine group, 1-3 SO_2 groups and 1-2 phenylene groups or optionally is substituted by 1-3 radicals R^F, in which R^d stands for a hydrogen atom, a phenyl group, benzyl group or a C_1-C_{15} alkyl group, which optionally contains 1-2 NHCO groups, 1-2 CO groups, or 1-5 oxygen atoms and optionally is substituted by 1-5 hydroxy, 1-5 methoxy, 1-3 carboxy, or 1-3 R^F radicals,
- V is a direct bond or a chain of general formula IIa or IIIa:



(IIa)



(IIIa)

in which

R^e is a hydrogen atom, a phenyl group, a benzyl group or a C_1-C_7-alkyl group, which optionally is substituted with a carboxy group, a methoxy group or a hydroxy group,

W is a direct bond, a polyglycol ether group with up to 5 glycol units, or a molecule part of general formula IVa

$$-CH(R^h)- \qquad \text{(IVa)}$$

in which R^h is a C_1-C_7 carboxylic acid, a phenyl group, a benzyl group or a -$(CH_2)_{1\text{-}5}$-NH-K group,

α represents the binding to the nitrogen atom of the skeleton chain, β represents the binding to complexing agents or metal complex K,

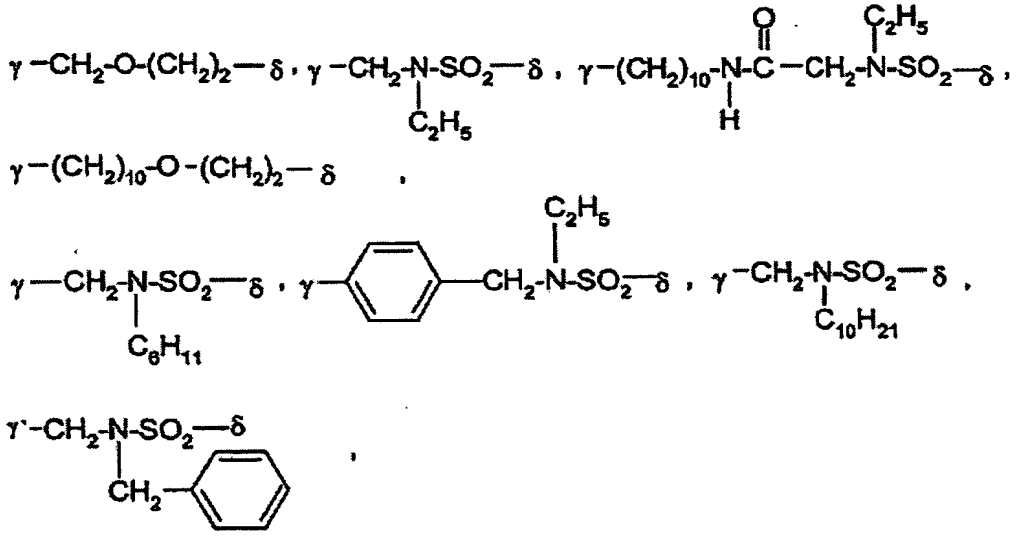
and in which variables k and m stand for natural numbers between 0 and 10, and l stands for 0 or 1

and wherein

D is a CO or SO_2 group.

Claim 13 (Previously Presented): A method according to claim 12, wherein in the compounds of general formula Ia, q is the number 1.

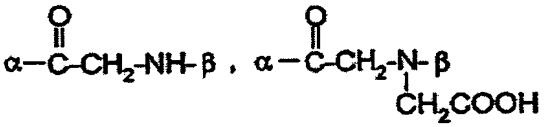
Claim 14 (Previously Presented): A method according to claim 12, wherein in the compounds of general formula Ia, molecule part X is an alkylene chain, which contains 1-10 CH_2CH_2O groups or 1-5 $COCH_2NH$ groups, a direct bond or one of the following structures

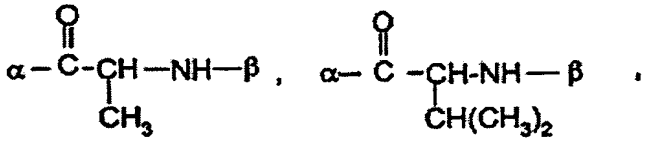


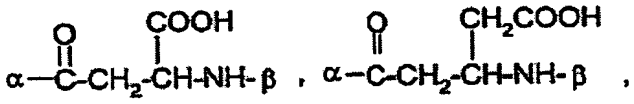
wherein

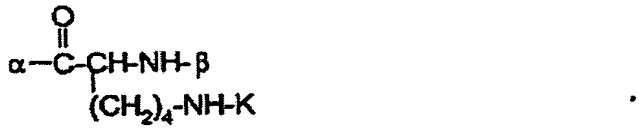
γ binds to D, and δ binds to R^F.

Claim 15 (Previously Presented): A method according to claim 12, wherein in the compounds of general formula Ia, V is a molecule part with one of the following structures

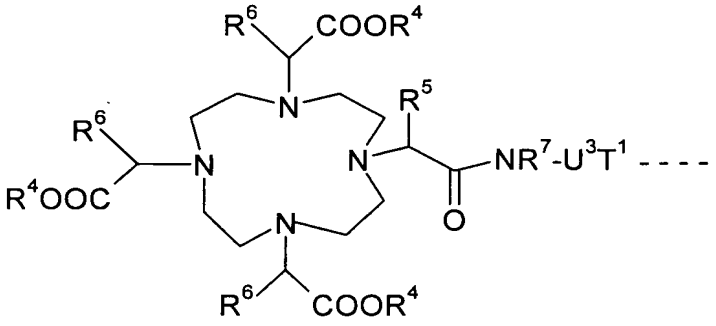




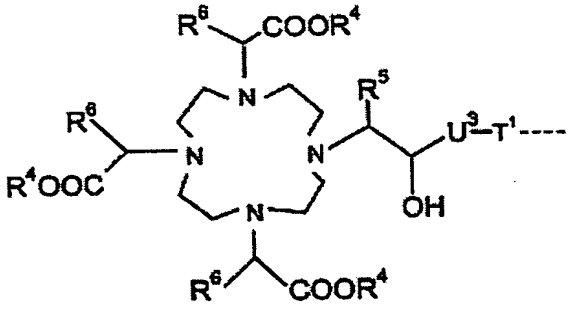




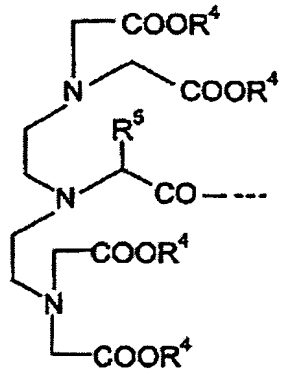
Claim 16 (Previously Presented): A method according to claim 12, wherein in the compounds of general formula Ia, K represents a complex of general formula Va, VIa, VIIa or VIIIa,



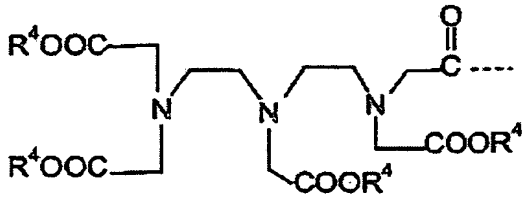
(Va)



(VIa)



(VIIa)



(VIIIa)

wherein

- R^4, independently of one another, are a hydrogen atom or a metal ion equivalent of the elements of atomic numbers 23-29, 42-46 or 58-70,
- R^5 is a hydrogen atom or a straight-chain, branched, saturated or unsaturated C_1-C_{30} alkyl chain, which optionally is substituted by 1-5 hydroxy, 1-3 carboxy or 1 phenyl group(s) and/or optionally is interrupted by 1-10 oxygen atoms, 1 phenylene group or 1 phenylenoxy group,
- R^6 is a hydrogen atom, a straight-chain or branched C_1-C_7 alkyl radical, a phenyl radical or benzyl radical,
- R^7 is a hydrogen atom, a methyl group or ethyl group, which optionally is substituted by a hydroxy group or carboxy group,
- U^3 is a straight-chain, branched, saturated or unsaturated C_1-C_{20} alkylene group optionally containing 1-5 imino groups, 1-3 phenylene groups, 1-3 phenylenoxy groups, 1-3 phenylenimino groups, 1-5 amide groups, 1-2 hydrazide groups, 1-5

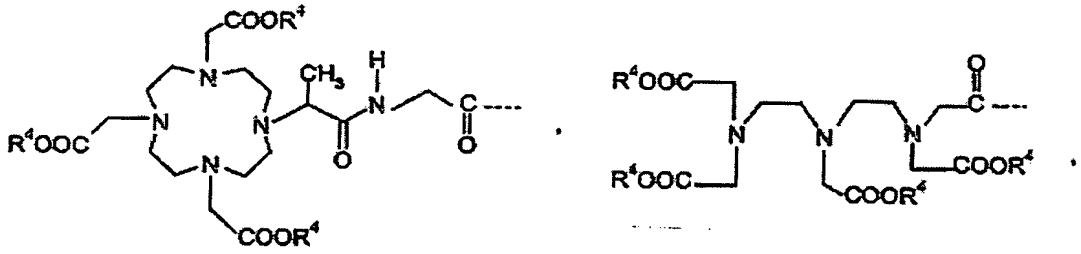
carbonyl groups, 1-5 ethylenoxy groups, 1 urea group, 1 thiourea group, 1-2 carboxyalkylimino groups, 1-2 ester groups, 1-1-0 oxygen atoms, 1-5 sulfur atoms and/or 1-5 nitrogen atoms, and/or optionally substituted by 1-5 hydroxy groups, 1-2 mercapto groups, 1-5 oxo groups, 1-5 thioxo groups, 1-3 carboxy groups, 1-5 carboxyalkyl groups, 1-5 ester groups and/or 1-3 amino groups, wherein the optionally contained phenylene groups can be substituted by 1-2 carboxy groups, 1-2 sulfone groups or 1-2 hydroxy groups

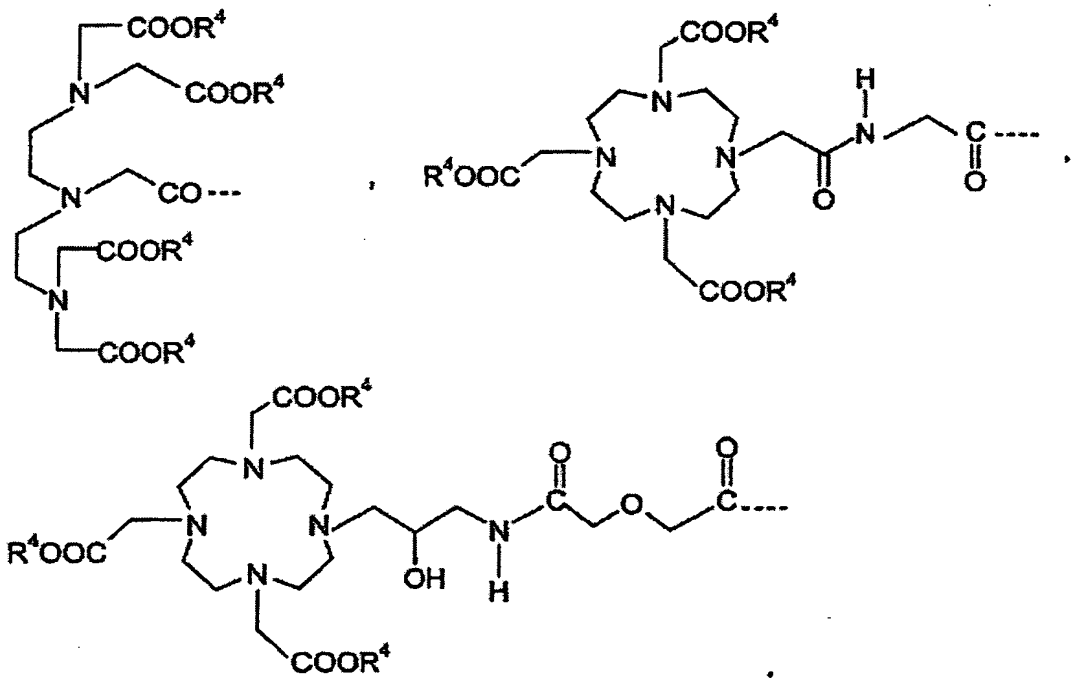
- T^1 stands for a -CO-β, -NHCO-β or -NHCS-β group, wherein β represents the binding site to V.

Claim 17 (Previously Presented): A method according to claim 16, wherein the C_1-C_{20}-alkylene chain that stands or U^3 contains the groups $-CH_2NHCO-$, $-NHCOCH_2O-$, $-NHCOCH_2OC_6H_4-$, $-N(CH_2CO_2H)-$, $-CH_2OCH_2-$, $-NHCOCH_2C_6H_4-$, $-NHCSNHC_6H_4-$, $-CH_2OC_6H_4-$, $-CH_2CH_2O-$ and/or is substituted by the groups -COOH and $-CH_2COOH$.

Claim 18 (Previously Presented): A method according to claim 16, wherein U^3 stands for a $-CH_2-$, $-CH_2CH_2-$, $-CH_2CH_2CH_2-$, $-C_6H_4-$, $-C_6H_{10}-$, $-CH_2C_6H_4-$, $-CH_2NHCOCH_2CH(CH_2CO_2H)-C_6H_4-$, $-CH_2NHCOCH_2OCH_2-$, or $-CH_2NHCOCH_2C_6H_4-$ group.

Claim 19 (Previously Presented): A method according to claim 12, wherein in the compounds of general formula Ia, K has one of the following structures:

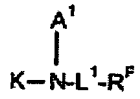




Claim 20 (Previously Presented): A method according to claim 12, wherein in the compounds of general formula Ia, the perfluoroalkyl chain R^F is $-C_6F_{13}$, $-C_8F_{17}$, $-C_{10}F_{21}$ or $-C_{12}F_{25}$.

Claim 21 (Currently Amended): A method according to claim 12, wherein the gadolinium complex of 1,4,7-tris{1,4,7-tris(N-(carboxylatomethyl)-10-[N-1-methyl-3,6-diaza-2,5,8-trioxooctane-1,8-diyl)]-1,4,7,10-tetraazacyclododecane, Gd complex}-10-[N-2H,2H,4H,4H,5H,5H-3-oxa-perfluorotridecanoyl]-1,4,7,10-tetraazacyclododecane is administered ~~used~~.

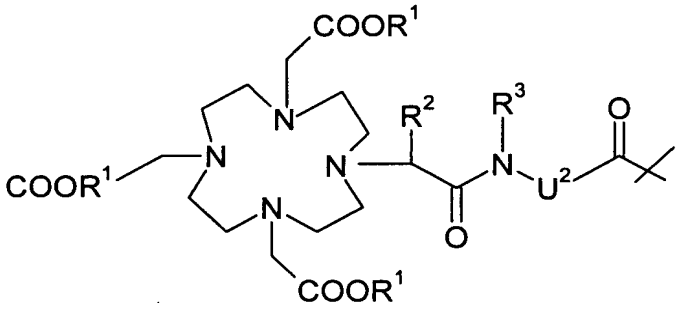
Claim 22 (Previously Presented): A method according to claim 1, wherein the perfluoroalkyl-containing metal complexes are of formula Ib



(Ib)

in which

K means a complexing agent or a metal complex of general formula IIb



(IIb)

wherein

R^1 stands for a hydrogen atom or a metal ion equivalent of atomic numbers 23-29, 42-46 or 58-70,

R^2 and R^3 stand for a hydrogen atom, a C_1-C_7-alkyl group, a benzyl group, a phenyl group, $-CH_2OH$ or $-CH_2-OCH_3$,

U^2 stands for radical L^1, wherein L^1 and U^2, independently of one another, can be the same or different, however,

A^1 means a hydrogen atom, a straight-chain or branched C_1-C_{30} alkyl group, which optionally is interrupted by 1-15 oxygen atoms, and/or optionally is substituted with 1-10 hydroxy groups, 1-2 COOH groups, a phenyl group, a benzyl group and/or 1-5 $-OR^9$ groups, with R^9 in the meaning of a hydrogen atom or a C_1-C_7 alkyl radical, or $-L^1-R^F$,

L^1 means a straight-chain or branched C_1-C_{30}-alkylene group, which optionally is interrupted by 1-10 oxygen atoms, 1-5 -NH-CO groups, 1-5 -CO-NH groups, by a phenylene group optionally substituted by a COOH- group, 1-3 sulfur atoms, 1-2

-$N(B^1)$-SO_2 groups and/or 1-2 -SO_2-$N(B^1)$-groups with B^1 in the meaning of A^1, and/or optionally is substituted with radical R^F, and

R^F means a straight-chain or branched perfluorinated alkyl radical of formula $C_nF_{2n}E$, wherein n stands for numbers 4-30, and

E stands for a terminal fluorine atom, chlorine atom, bromine atom, iodine atom or a hydrogen atom,

and optionally present acid groups optionally can be present as salts of organic and/or inorganic bases or amino acids or amino acid amides.

Claim 23 (Previously Presented): A method according to claim 22, wherein in the compounds of general formula Ib, R^2, R^3 and R^9, independently of one another, mean hydrogen or a C_1-C_4 alkyl group.

Claim 24 (Previously Presented): A method according to claim 22, wherein in the compounds of general formula Ib, A^1 means hydrogen, a C_1-C_{15} alkyl radical, or one of the radicals

C_2H_4-O-CH_3 , C_3H_6-O-CH_3,
C_2H_4-O-$(C_2H_4$-O$)_t$-C_2H_4-OH,
C_2H_4-O-$(C_2H_4$-O$)_t$-C_2H_4-OCH_3,
C_2H_4OH, C_3H_6OH, C_4H_8OH, $C_5H_{10}OH$, $C_6H_{12}OH$, $C_7H_{14}OH$,
$CH(OH)CH_2OH$,
$CH(OH)CH(OH)CH_2OH$, $CH_2[CH(OH)]_u{}^1CH_2OH$,
$CH[CH_2(OH)]CH(OH)CH_2OH$,
$C_2H_4CH(OH)CH_2OH$,
$(CH_2)_sCOOH$,

C_2H_4-O-(C_2H_4-O)$_t$-CH_2COOH or

C_2H_4-O-(C_2H_4-O)$_t$-C_2H_4-$C_nF_{2n}E$,

wherein

s stands for integers 1 to 15,

t stands for integers 0 to 13,

u^1 stands for integers 1 to 10,

n stands for integers 4 to 20, and

E stands for hydrogen, fluorine, chlorine, bromine or iodine atoms,

or a branched isomer thereof.

Claim 25 (Previously Presented): A method according to claim 22, wherein in the compounds of general formula Ib, A^1 means hydrogen, C_1-C_{10} alkyl, or one of the following

C_2H_4-O-CH_3, C_3H_6-O-CH_3,

C_2H_4-O-(C_2H_4-O)$_x$-C_2H_4-OH, C_2H_4-O-(C_2H_4-O)$_x$-C_2H_4-OCH_3,

C_2H_4OH, C_3H_8OH,

$CH_2[CH(OH)]_yCH_2OH$,

$CH[CH_2(OH)]CH(OH)CH_2OH$,

$(CH_2)_wCOOH$,

C_2H_4-O-(C_2H_4-O)$_x$-CH_2COOH,

C_2H_4-O-(C_2H_4-O)$_x$-C_2H_4-$C_nF_{2n}E$,

wherein

x stands for integers 0 to 5,

y stands for integers 1 to 6,

w stands for integers 1 to 10,

n stands for integers 4 to 15, and

E stands for a fluorine atom,

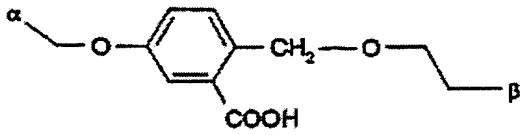
or a branched isomer thereof.

Claim 26 (Previously Presented): A method according to claim 22, wherein in the compounds of general formula Ib, L^1 means one of the following

α-$(CH_2)_s$-β
α-CH_2-CH_2-(O-CH_2-CH_2-)$_y$-β
α-CH_2-(O-CH_2-CH_2-)$_y$-β,
α-CH_2-NH-CO-β
α-CH_2-CH_2-NH-SO_2-β
α-CH_2-NH-CO-CH_2-N(CH_2COOH)-SO_2-β
α-CH_2-NH-CO-CH_2-N(C_2H_5)-SO_2-β
α-CH_2-NH-CO-CH_2-N($C_{10}H_{21}$)-SO_2-β
α-CH_2-NH-CO-CH_2-N(C_6H_{13})-SO_2-β
α-CH_2-NH-CO-$(CH_2)_{10}$-N(C_2H_5)-SO_2-β
α-CH_2-NH-CO-CH_2-N(-CH_2-C_6H_5)-SO_2-β
α-CH_2-NH-CO-CH_2-N(-CH_2-CH_2-OH)SO_2-β
α-CH_2-NHCO-$(CH_2)_{10}$-S-CH_2CH_2-β
α-$CH_2NHCOCH_2$-O-CH_2CH_2-β
α-CH_2-$CH_2NHCOCH_2$-O-CH_2CH_2-β
α-CH_2-(CH_2-CH_2-O)$_t$-$(CH_2)_3$NHCO-CH_2-O-CH_2CH_2-β
α-$CH_2NHCO(CH_2)_{10}$-O-CH_2CH_2-β
α-$CH_2CH_2NHCO(CH_2)_{10}$-O-CH_2CH_2-β
α-CH_2-C_6H_4-O-CH_2CH_2-β,

wherein phenylene group 1,4 or 1,3 is linked

α-CH_2-O-CH_2-C(CH_2-OCH_2CH_2-C_6F_{13})$_2$-CH_2-OCH_2-CH_2-β
α-CH_2-$NHCOCH_2CH_2CON$-$CH_2CH_2NHCOCH_2N(C_2H_5)SO_2C_8F_{17}$β
α-CH_2-$CH_2NHCOCH_2N(C_2H_5)$-SO_2-β
α-CH_2-O-CH_2-CH($OC_{10}H_{21}$)-CH_2-O-CH_2CH_2-β
α-(CH_2NHCO)$_4$-CH_2O-CH_2CH_2-β
α-(CH_2NHCO)$_3$-CH_2O-CH_2CH_2-β
α-CH_2-O$CH_2C(CH_2OH)_2$-CH_2-O-CH_2CH_2-β



α-$CH_2NHCOCH_2N(C_6H_5)$-SO_2-β
α-NHCO-CH_2-CH_2-β
α-NHCO-CH_2-O-CH_2CH_2-β
α-NH-CO-β
α-NH-CO-CH_2-$N(CH_2COOH)$-SO_2-β
α-NH-CO-CH_2-$N(C_2H_5)$-SO_2-β
α-NH-CO-CH_2-$N(C_{10}H_{21})$-SO_2-β
α-NH-CO-CH_2-$N(C_6H_{13})$-SO_2-β
α-NH-CO-$(CH_2)_{10}$-$N(C_2H_5)$-SO_2-β
α-NH-CO-CH_2-$N(-CH_2-C_6H_5)$-SO_2-β
α-NH-CO-CH_2-$N(-CH_2-CH_2-OH)SO_2$-β
α-NH-CO-CH_2-β
α-CH_2-O-C_6H_4-O-CH_2-CH_2-β
α-CH_2-C_6H_4-O-CH_2-CH_2-β
α-$N(C_2H_5)$-SO_2-β
α-$N(C_6H_5)$-SO_2-β
α-$N(C_{10}H_{21})$-SO_2-β
α-$N(C_6H_{13})$-SO_2-β
α-$N(C_2H_4OH)$-SO_2-β
α-$N(CH_2COOH)$-SO_2-β
α-$N(CH_2C_6H_5)$-SO_2-β
α-N-$[CH(CH_2OH)_2]$-SO_2-β
α-N-$[CH(CH_2OH)CH(OH)(CH_2OH)]$-$SO_2$-β

wherein

s stands for integers 1 to 15 and

y stands for integers 1 to 6.

Claim 27 (Previously Presented): A method according to claim 22, wherein in the

compounds of general formula Ib, L^1 means one of the following

α-CH_2-O-CH_2CH_2-β,
α-CH_2-CH_2-(O-CH_2-CH_2-)$_y$-β,
α-CH_2-(O-CH_2-CH_2-)$_y$-β,
α-CH_2-CH_2-NH-SO_2-β, Example 10
α-$CH_2NHCOCH_2$-O-CH_2CH_2-β,
α-CH_2-$CH_2NHCOCH_2$-O-CH_2CH_2-β,
α-CH_2-(CH_2-CH_2-O)$_y$-$(CH_2)_3NHCO$-CH_2-O-CH_2CH_2-β,
α-$CH_2NHCO(CH_2)_{10}$-O-CH_2CH_2-β,
α-$CH_2CH_2NHCO(CH_2)_{10}$-O-CH_2CH_2-β,
α-CH_2-O-CH_2-$CH(OC_{10}H_{21})$-CH_2-O-CH_2CH_2-β,
α-CH_2-O-C_6H_4-O-CH_2-CH_2-β or
α-CH_2-C_6H_4-O-CH_2-CH_2-β

or

wherein

y stands for integers 1 to 6.

Claim 28 (Previously Presented): A method according to claim 22, wherein in the compounds of general formula Ib, R^F means a straight-chain or branched perfluorinated alkyl radical of formula $C_nF_{2n}E$, wherein n stands for numbers 4 to 15 and E stands for a terminal fluorine atom.

Claim 29 (Currently Amended): A method according to claim 22, wherein one of the following complexes are administered ~~used~~:

-- 1,4,7-Tris(carboxylatomethyl)-10-(3-aza-4-oxo-hexan-5-ylic)-acid-(2,3-dihydroxypropyl)-N-(1H,1H,2H,2H,4H,4H,5H,5H-3-oxa)-perfluorotridecyl)-amide]-1,4,7,10-tetraazacyclododecane, gadolinium complex

-- 1,4,7-Tris(carboxylatomethyl)-10-{(3-aza-4-oxo-hexan-5-ylic)acid-N-(3,6,9,12,15-pentaoxa)-hexadecyl)-(1H,1H,2H,2H,4H,4H,5H,5H-3-oxa)-

perfluorotridecyl]-amide}-1,4,7,10-tetraazacyclododecane, gadolinium complex

-- 1,4,7-Tris(carboxylatomethyl)-10-{(3-aza-4-oxo-hexan-5-ylic)-acid-N-5-hydroxy-3-oxa-pentyl)-N-(1H,1H,2H,2H,4H,4H,5H,5H-3-oxa)-perfluorotridecyl]-amide}-1,4,7,10-tetraazacyclododecane, gadolinium complex

-- 1,4,7-Tris(carboxylatomethyl)-10-{(3-aza-4-oxo-hexan-5-ylic)-acid-[N-3,6,9,15-tetraoxa-12-aza-15-oxo-C_{17}-C_{26}-hepta-decafluor0)hexacosyl]-amide}-1,4,7,10-tetraazacyclododecane, gadolinium complex

-- 1,4,7-Tris(carboxylatomethyl)-10-[(3-aza-4-oxo-hexan-5-ylic]-acid-N-(2-methoxyethyl)-N-(1H,1H,2H,2H,4H,4H,5H,5H-3-oxa)-perfluorotridecyl]-amide}-1,4,7,10-tetraazacyclododecane, gadolinium complex.

Claim 30 (Previously Presented): A method according to claim 1, wherein the perfluoroalkyl-containing metal complexes are of formula Ic

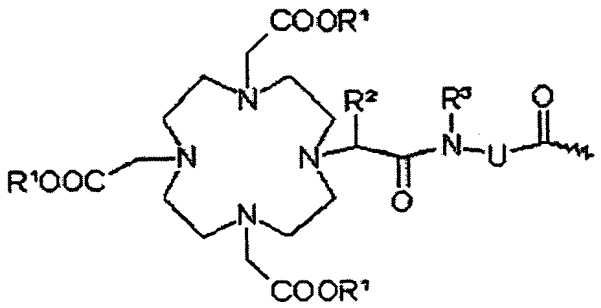
$$\begin{array}{l}(K)_{l^1}\text{-}G\text{-}(Z\text{-}R^F)_{m^1} \\ \qquad\;\; | \\ \qquad (Y\text{-}R)_{p^1}\end{array} \qquad (Ic)$$

in which

R represents a mono-or oligosaccharide radical bonded by the 1-OH- or 1-SH-position,

R^F is a perfluorinated, straight-chain or branched carbon chain with the formula $-C_nF_{2n}E$, in which E represents a terminal fluorine, chlorine, bromine, iodine or hydrogen atom, and n stands for numbers 4-30,

K stands for a metal complex of general formula IIc,



(IIc)

in which

R^1 means a hydrogen atom or a metal ion equivalent of atomic numbers 23-29, 42-46 or 58-70,

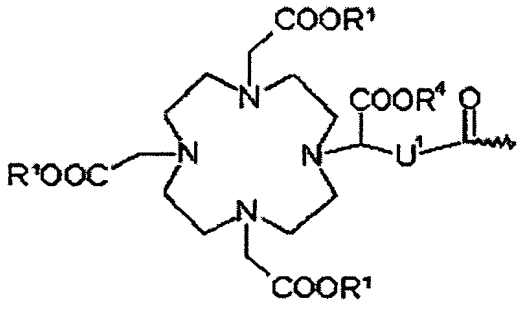
provided that at least two R^1 stand for metal ion equivalents,

R^2 and R^3, independently of one another, represent hydrogen, C_1-C_7-alkyl, benzyl, phenyl, $-CH_2OH$ or $-CH_2OCH_3$, and

U represents $-C_6H_4-O-CH_2-\omega$, $-(CH_2)_{1-5}-\omega$, a phenylene group, $-CH_2-NHCO-CH_2-CH(CH_2COOH)-C_6H_4-\omega$, $-C_6H_4-(OCH_2CH_2)_{0-1}-N(CH_2COOH)-CH_2-\omega$, or a C_1-C_{12}-alkylene group or C_7-C_{12}-C_6H_4-O group optionally interrupted by one or more oxygen atoms, 1 to 3 -NHCO groups or 1 to 3 -CONH groups and/or substituted with 1 to 3 $-(CH_2)_{0-5}$ COOH groups, wherein ω stands for the binding site to -CO-,

or

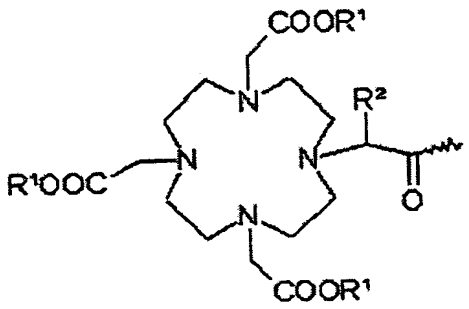
of general formula IIIc



(IIIc)

in which R^1 has the above-mentioned meaning, R^4 represents hydrogen or a metal ion equivalent mentioned under R^1, and U^1 represents $-C_6H_4-O-CH_2-\omega$, wherein ω means the binding site to -CO-,

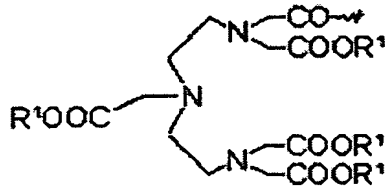
or of general formula IVc



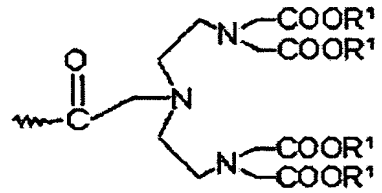
(IVc)

in which R^1 and R^2 have the above-mentioned meaning

or of general formula VcA or VcB



(VcA)



(VcB)

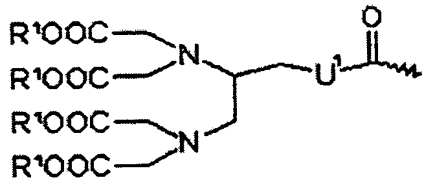
in which R^1 has the above-mentioned meaning,

or of general formula VIc

(VIc)

in which R^1 has the above-mentioned meaning,

or of general formula VIIc

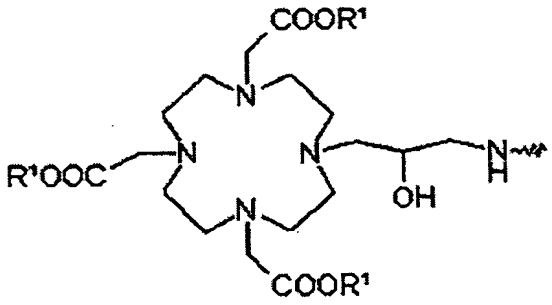


(VIIc)

in which R^1 has the above-mentioned meaning, and

U^1 represents $-C_6H_4-O-CH_2-\omega$, wherein ω means the binding site to -CO-

or of general formula VIIIc



(VIIIc)

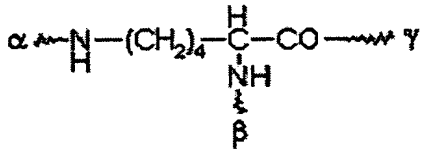
in which R^1 has the above-mentioned meaning,

and in radical K, optionally present free acid groups optionally can be present as salts of organic and/or inorganic bases or amino acids or amino acid amides,

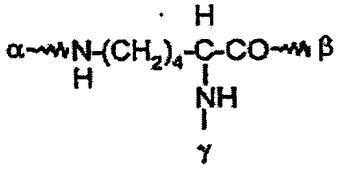
G for the case that K means a metal complex of IIc to VIIc, represents a radical that is functionalized in at least three places and is selected from the following radicals

a) to j)

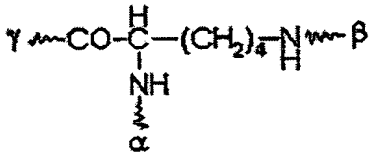
(a1)



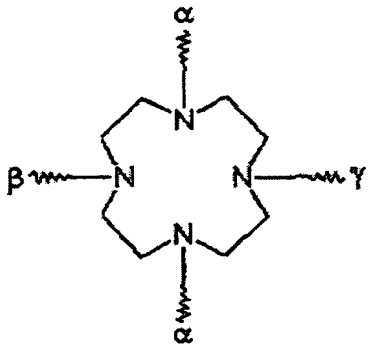
(a2)



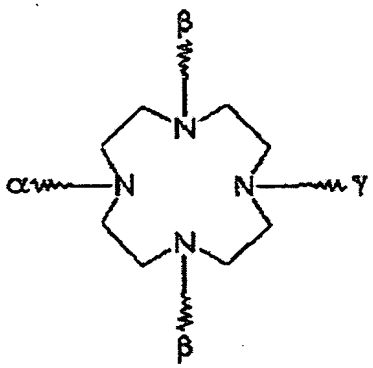
(b)



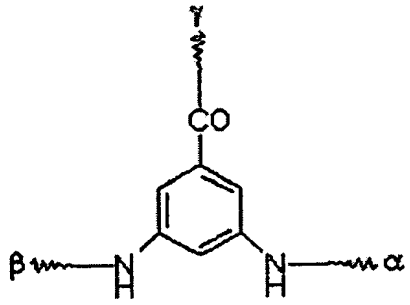
(c)



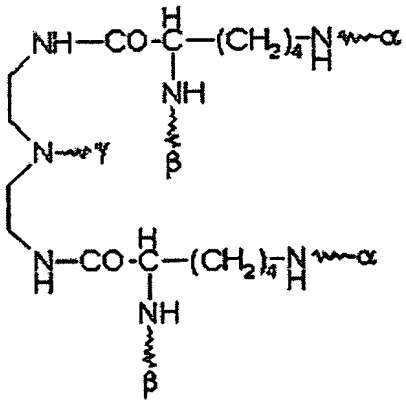
(d)



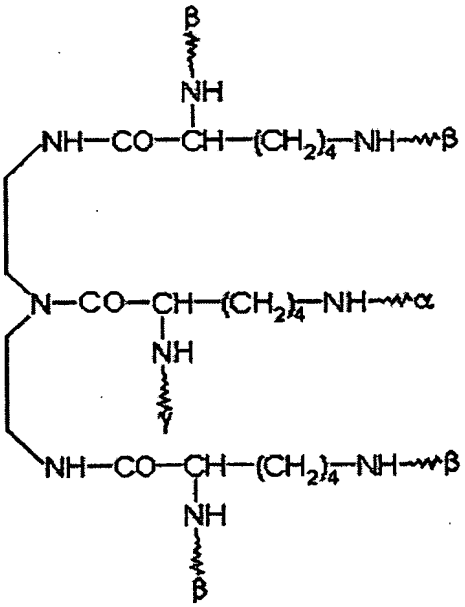
(e)



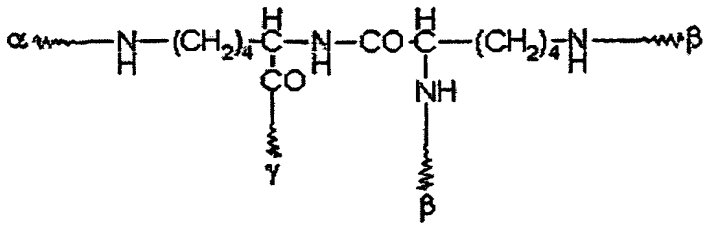
(f)



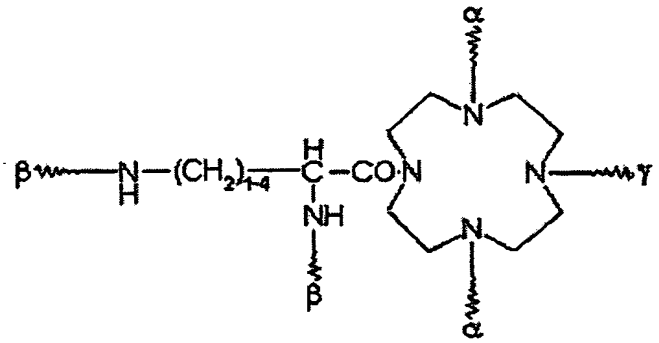
(g)



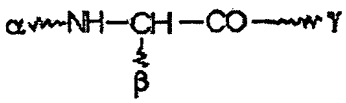
(h)



(i)



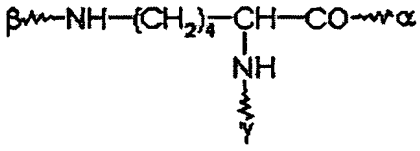
(j)



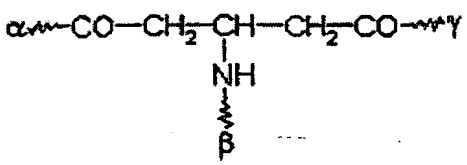
and

G for the case that K means a metal complex VIIIc, represents a radical that is functionalized in at least three places and is selected from k) or l),

(k)



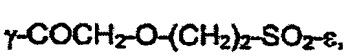
(l)

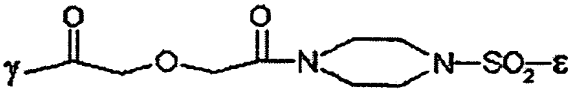


wherein α means the binding site of G to complex K, β is the binding site of G to radical Y, and γ represents the binding site of G to radical Z,

Y means $-CH_2$, δ-$(CH_2)_{(1\text{-}5)}CO$-β, β-$(CH_2)_{(1\text{-}5)}CO$-δ, δ-CH_2-CHOH-CO-β or δ-CH(CHOH-CH_2OH)-CHOH-CHOH-CO-β, wherein δ represents the binding site to sugar radical R and β is the binding site to radical G,

Z stands for





or

γ - $NHCH_2CH_2$-O-CH_2CH_2-ξ

wherein γ represents the binding site of Z to radical G, and ξ means the binding site of Z to perfluorinated radical R^F

and

l^1, m^1, independently of one another, mean integers 1 or 2, and

p^1 means integers 1 to 4.

Claim 31 (Previously Presented): A method according to claim 30, wherein in the compounds of general formula Ic, R represents a monosaccharide radical with 5 to 6 C atoms or its deoxy compound or is glucose, mannose or galactose.

Claim 32 (Previously Presented): A method according to claim 30, wherein in the compounds of general formula Ic, R^2 and R^3, independently of one another, mean hydrogen or C_1-C_4 alkyl and/or E in formula $-C_nF_{2n}E$ means a fluorine atom.

Claim 33 (Previously Presented): A method according to claim 30, wherein in the compounds of general formula Ic, G represents lysine radical (a) or (b).

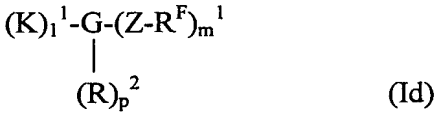
Claim 34 (Previously Presented): A method according to claim 30, wherein in the compounds of general formula Ic, Z means

wherein γ represents the binding site of Z to radical G, and ξ means the binding site of Z to perfluorinated radical R^F, and/or Y means δ-CH_2COβ, wherein δ represents the binding site to sugar radical R and β represents the binding site to radical G.

Claim 35 (Previously Presented): A method according to claim 30, wherein in the compounds of general formula Ic, U in metal complex K represents $-CH_2-$ or $-C_6H_4-O-CH_2-$ω, wherein ω stands for the binding site to -CO-.

Claim 36 (Currently Amended): A method according to claim 30, wherein the gadolinium complex of 6-N-[1,4,7-tris(carboxylatomethyl)-1,4,7,10-tetraazacyclododecane-10-N-(pentanoyl-3-aza-4-oxo-5-methyl-5-yl)]-2-N-[1-O-α-D-carbonylmethyl-mannopyranose]-L-lysine-[1-(4-perfluorooctylsulfonyl)-piperazine]-amide is <u>administered</u> ~~used~~.

Claim 37 (Previously Presented): A method according to claim 1, wherein the perfluoroalkyl-containing metal complexes are of formula Id

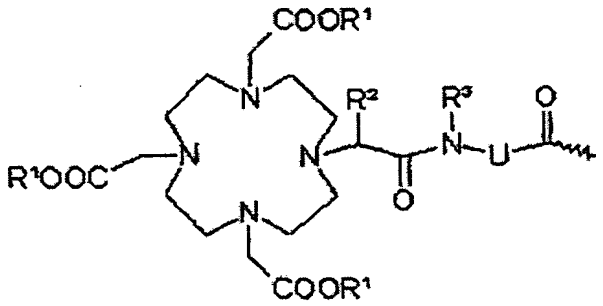


(Id)

in which

R^F is a perfluorinated, straight-chain or branched carbon chain with formula $-C_nF_{2n}E$, in which E represents a terminal fluorine, chlorine, bromine, iodine or hydrogen atom, and n stands for numbers 4-30,

K stands for a metal complex of general formula IId,



(IId)

in which

R^1 means a hydrogen atom or a metal ion equivalent of atomic numbers 23-29, 42-46 or 58-70,

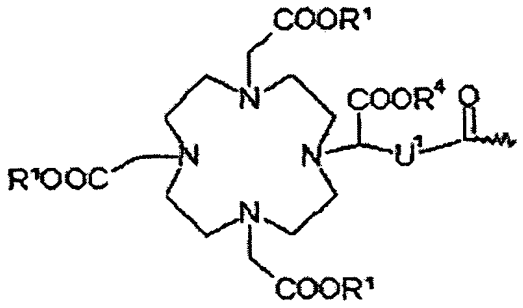
provided that at least two R^1 stand for metal ion equivalents,

R^2 and R^3, independently of one another, represent hydrogen, C_1-C_7 alkyl, benzyl, phenyl, $-CH_2OH$ or $-CH_2OCH_3$, and

U represents $-C_6H_4-O-CH_2-\omega-$, $-(CH_2)_{1-5}-\omega$, a phenylene group, $-CH_2-NHCO-CH_2-CH(CH_2COOH)-C_6H_4-\omega-$, $-C_6H_4-(OCH_2CH_2)_{0-1}-N(CH_2COOH)-CH_2-\omega$, or a C_1-C_{12} alkylene group or C_7-C_{12}-C_6H_4-O group optionally interrupted by one or more oxygen atoms, 1 to 3 -NHCO groups, 1 to 3 -CONH groups and/or substituted with 1 to 3 $-(CH_2)_{0-5}COOH$ groups, wherein ω stands for the binding site to -CO-,

or

of general formula IIId

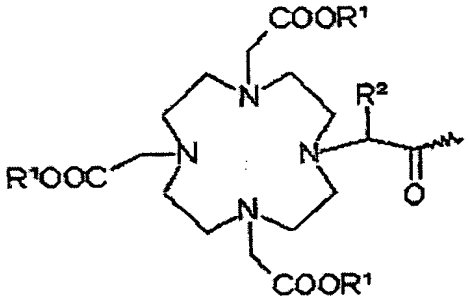


(IIId)

in which R^1 has the above-mentioned meaning, R^4 represents hydrogen or a metal ion equivalent mentioned under R^1, and U^1 represents $-C_6H_4-O-CH_2-\omega-$, wherein ω means the binding site to -CO-,

or

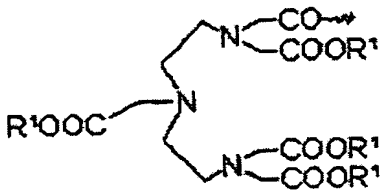
of general formula IVd



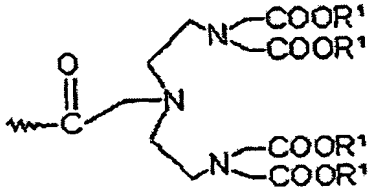
(IVd)

in which R^1 and R^2 have the above-mentioned meaning,

or of general formula VdA or VdB



(VdA)



(VdB)

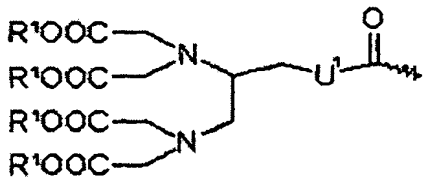
in which R^1 has the above-mentioned meaning,

or of general formula VId

(VId)

in which R^1 has the above-mentioned meaning,

or of general formula VIId



(VIId)

in which R^1 has the above-mentioned meaning, and

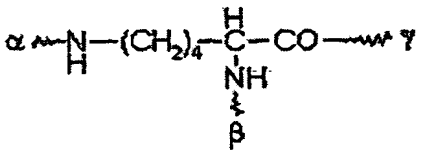
U^1 represents $-C_6H_4-O-CH_2-\omega-$, wherein ω means the binding site to -CO-,

and in radical K, optionally present free acid groups optionally can be present as salts of

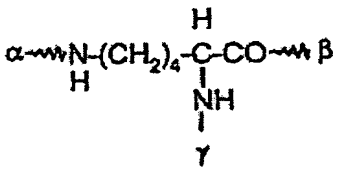
organic and/or inorganic bases or amino acids or amino acid amides,

G represents a radical that is functionalized in at least three places and is selected from the following radicals a) to g)

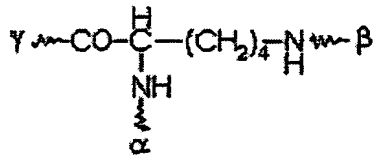
(a1)



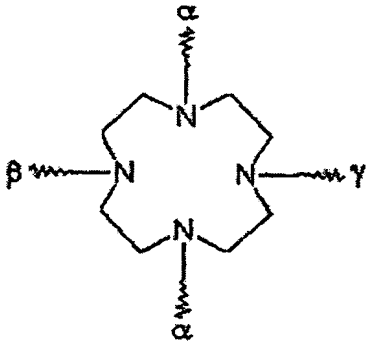
(a2)



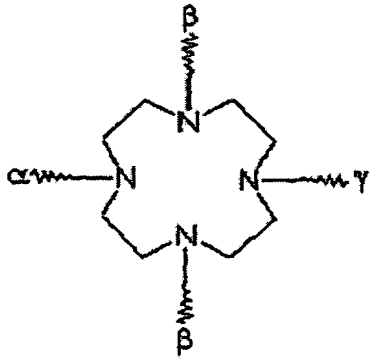
(b)



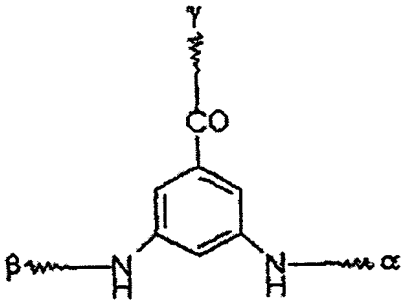
(c)



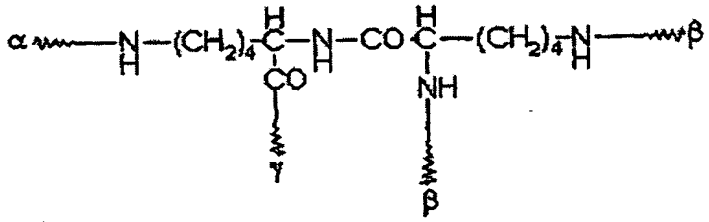
(d)



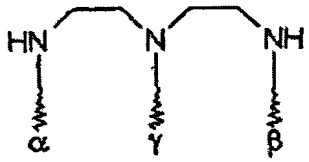
(e)



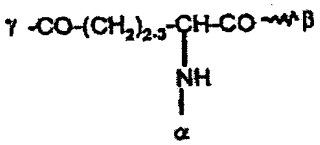
(f)



(g)

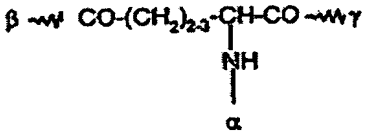


(h)



;

(i)



wherein α means the binding site of G to complex K, β is the binding site of G to radical R, and γ represents the binding site of G to radical Z

Z stands for

wherein γ represents the binding site of Z to radical G and ξ means the binding site of Z to perfluorinated radical R_f,

R represents a polar radical that is selected from complexes K of general formulas IId to VIId, wherein R^1 here means a hydrogen atom or a metal ion equivalent of atomic numbers 20, 23-29, 42-46 or 58-70,

and radicals R^2, R^3, R^4, U and U^1 have the above-indicated meaning,

or

means the folic acid radical

or

means a carbon chain with 2-30 C atoms that is bonded to radical G via -CO- or SO_2- or a direct bond to radical G, and is straight or branched, saturated or unsaturated,optionally interrupted by 1-10 oxygen atoms, 1-5 -NHCO groups, 1-5 -CONH groups, 1-2 sulfur atoms, 1-5 -NH groups or 1-2 phenylene groups, which optionally can be substituted with 1-2 OH groups, 1-2 NH_2 groups, 1-2 -COOH groups, or 1-2 $-SO_3H$ groups,

or

optionally substituted with 1-8 OH groups, 1-5 -COOH groups, 1-2 SO_3H groups, 1-5 NH_2 groups, or 1-5 C_1-C_4 alkoxy groups, and

l^1, m^1, p^2, independently of one another, mean integers 1 or 2.

Claim 38 (Previously Presented): A method according to claim 37, wherein in the compounds of general formula Id, K stands for a metal complex of general formula IId, IIId, VdB or VIId.

Claim 39 (Previously Presented): A method according to claim 37, wherein in the compounds of general formula Id, polar radical R has the meaning of complex K.

Claim 40 (Previously Presented): A method according to claim 37, wherein in the compounds of general formula Id, polar radical R has one of the following meanings:

-C(O)$CH_2CH_2SO_3H$
-C(O)$CH_2OCH_2CH_2OCH_2CH_2OH$
-C(O)$CH_2OCH_2CH_2OH$
-C(O)$CH_2OCH_2CH(OH)CH_2OH$
-C(O)CH_2NH-C(O)CH_2COOH
-C(O)$CH_2CH(OH)CH_2OH$
-C(O)CH_2OCH_2COOH
-$SO_2CH_2CH_2COOH$
-C(O)-C_6H_3-(m-COOH)$_2$
-C(O)$CH_2O(CH_2)_2$-C_6H_3-(m-COOH)$_2$
-C(O)CH_2O-C_6H_4-m-SO_3H
-C(O)$CH_2NHC(O)CH_2NHC(O)CH_2OCH_2COOH$
-C(O)$CH_2OCH_2CH_2OCH_2COOH$
-C(O)$CH_2OCH_2CH(OH)CH_2O$-CH_2CH_2OH
-C(O)$CH_2OCH_2CH(OH)CH_2OCH_2$-CH(OH)-CH_2OH
-C(O)CH_2SO_3H
-C(O)CH_2CH_2COOH
-C(O)$CH(OH)CH(OH)CH_2OH$
-C(O)$CH_2O[(CH_2)_2O]_{1-9}CH_3$

$-C(O)CH_2O[(CH_2)_2O]_{1-9}-H$
$-C(O)CH_2OCH(CH_2OH)_2$
$-C(O)CH_2OCH(CH_2OCH_2COOH)_2$
$-C(O)-C_6H_3-(m-OCH_2COOH)_2$

$-CO-CH_2O-(CH_2)_2O(CH_2)_2O-(CH_2)_2O(CH_2)_2OCH_3$
$-C(O)CH_2O[(CH_2)_2O]_4-CH_3$

Claim 41 (Previously Presented): A method according to claim 37, wherein in the compounds of general formula Id, polar radical R is the folic acid radical.

Claim 42 (Previously Presented): A method according to claim 37, wherein in the compounds of general formula Id, G represents lysine radical (a) or (b).

Claim 43 (Previously Presented): A method according to claim 37, wherein in the compounds of general formula Id, U represents group $-CH_2-$ or $-C_6H_4-O-CH_2-\omega$ in metal complex K, wherein ω stands for the binding site to -CO-.

Claim 44 (Currently Amended): A method according to claim 37, wherein the gadolinium complex of 2,6-N,N'-bis[1,4,7-tris(carboxylatomethyl)-1,4,7,10-tetraazacyclododecane-10-(pentanoyl-3-aza-4-oxo-5-methyl-5-yl)]-lysine-[1-(4-perfluorooctylsulfonyl-piperazine]-amide is administered ~~used~~.

Claim 45 (Previously Presented): A method according to claim 12, wherein the perfluoroalkyl-containing metal complexes are galenical formulations that contain paramagnetic, perfluoroalkyl-containing metal complexes of general formula Ia and diamagnetic perfluoroalkyl-containing substances, optionally dissolved in an aqueous solvent.

Claim 46 (Previously Presented): A method according to claim 45, wherein the diamagnetic perfluoroalkyl-containing substances are of formula XX

$$R^F\text{-}L^2\text{-}B^2 \qquad (XX)$$

in which R^F represents a straight-chain or branched perfluoroalkyl radical with 4 to 30 carbon atoms, L^2 stands for a linker and B^2 stands for a hydrophilic group.

Claim 47 (Previously Presented): A method according to claim 46, wherein linker L^2 is a direct bond, an $-SO_2$ group, or a straight-chain or branched carbon chain with up to 20 carbon atoms, which can be substituted with one or more -OH, -COO-, or $-SO_3$ groups and/or optionally contains one or more -O-, -S-, -CO-, -CONH-, -NHCO-, $-CONR^9$-, $-NR^9CO$-, $-SO_2$-, $-PO_4^-$-, -NH- or $-NR^9$ groups, an aryl ring or a piperazine, wherein R^9 stands for a C_1-to C_{20}-alkyl radical, which in turn can contain one or more O atoms, and/or can be substituted with $-COO^-$ or SO_3 groups.

Claim 48 (Previously Presented): A method according to claim 46, wherein hydrophilic group B^2 is a mono- or disaccharide, one or more adjacent $-COO^-$ or $-SO_3$ groups, a dicarboxylic acid, an isophthalic acid, a picolinic acid, a benzenesulfonic acid, a tetrahydropyrandicarboxylic acid, a 2,6-pyridinedicarboxylic acid, a quaternary ammonium ion, an aminopolycarboxylic acid, an aminodipolyethylene glycolsulfonic acid, an aminopolyethylene glycol group, an SO_2-$(CH_2)_2$-OH group, a polyhydroxyalkyl chain with at least two hydroxyl groups or one or more polyethylene glycol chains with at least two glycol units, wherein the polyethylene glycol chains are terminated by an -OH or $-OCH_3$ group.

Claim 49 (Previously Presented): A method according to claim 45, wherein the diamagnetic perfluoroalkyl-containing substances are conjugates that consist of α-, β- or γ-cyclodextrin or compounds of general formula XXII

$$A^1\text{-}L^3\text{-}R^F \qquad (XXII)$$

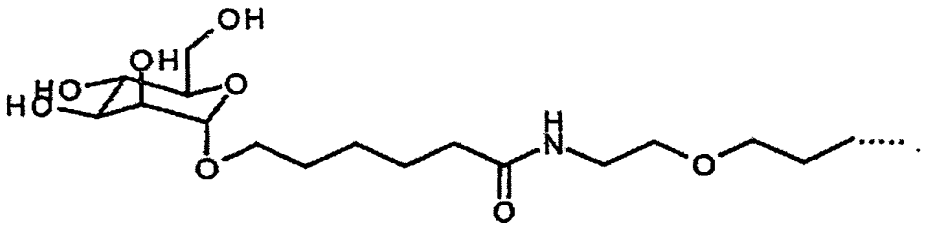
in which A^2 stands for an adamantane, biphenyl or anthracene molecule, L^3 stands for a linker, and R^F stands for a straight-chain or branched perfluoroalkyl radical with 4 to 30 carbon atoms,

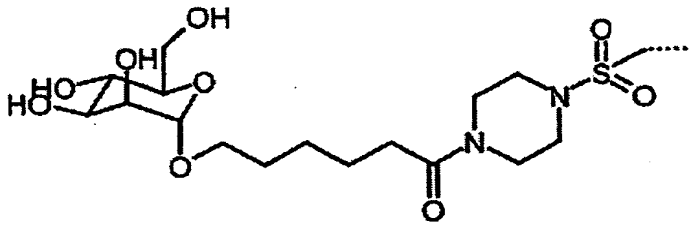
and wherein linker L^3 is a straight-chain hydrocarbon chain with 1 to 20 carbon atoms, which can be interrupted by one or more oxygen atoms, one or more CO-, SO_2-, CONH-, NHCO-, $CONR^{10}$-, $NR^{10}CO$-, NH- or NR^{10} groups or a piperazine, wherein R^{10} is a C_1-C_5 alkyl radical.

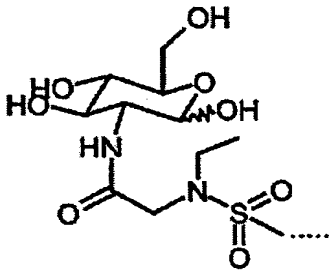
Claim 50 (Previously Presented): A method according to claim 45, wherein the diamagnetic perfluoroalkyl-containing substances are of formula XXI:

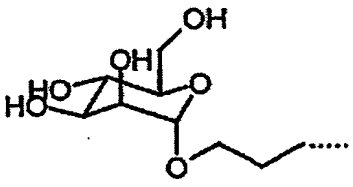
$$R^F\text{-}X^1 \qquad \text{(XXI)}$$

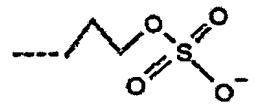
in which R^F represents a straight-chain or branched perfluoroalkyl radical with 4 to 30 carbon atoms, and X^1 is a radical that is selected from the group of the following radicals, wherein n is a number between 1 and 10:

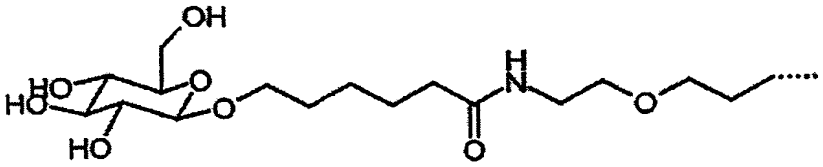


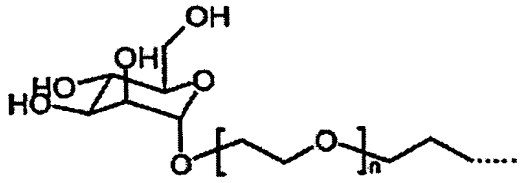


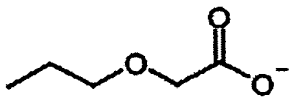


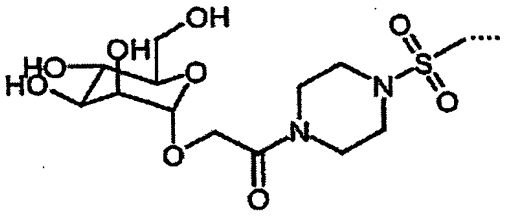


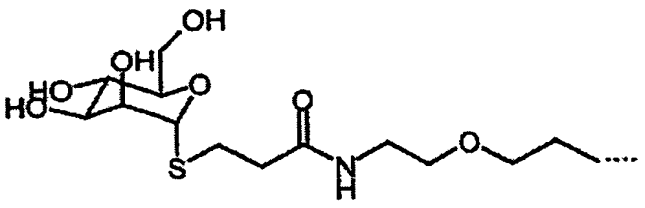


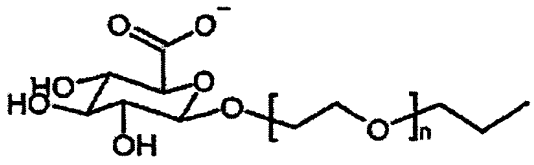


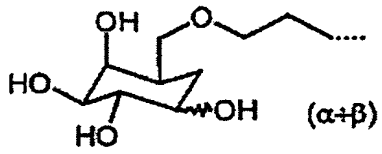


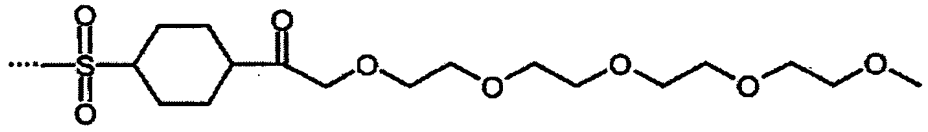


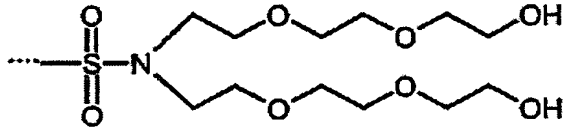


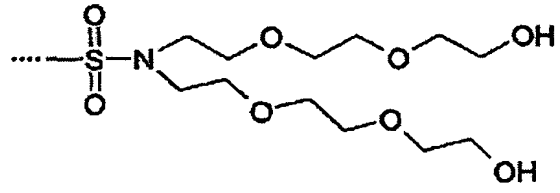


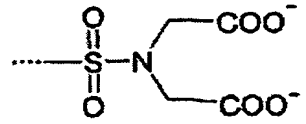


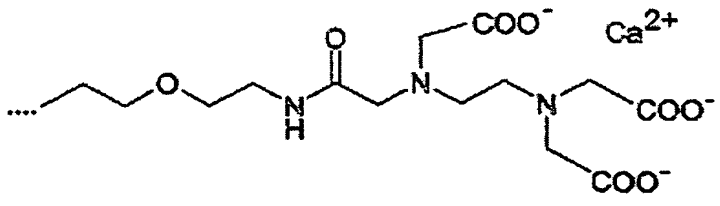


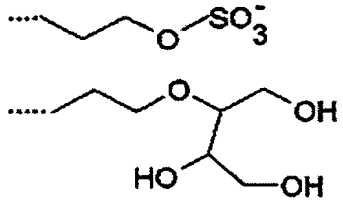


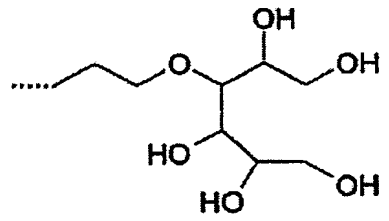


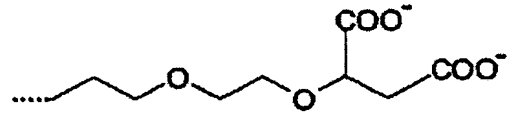


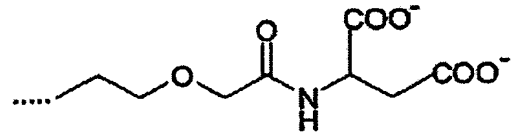


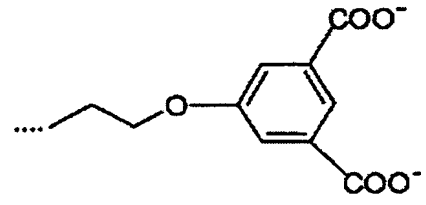

COO-
Ca2+
O
O
N
H
N
N
COO-
COO-


SO3-
O
O
OH
HO
OH


OH
O
OH
HO
HO
OH


COO-
O
O
COO-


COO-
O
O
N
H
COO-


COO-
O
COO-